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R307. Environmental Quality, Air Quality.
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R307-309. Nonattainment and Maintenance Areas for PM10 and PM2.5: Fugitive Emissions and Fugitive Dust.

# [<del>R307-309-1. Purpose.</del>

This rule establishes minimum work practices and emission standards for sources of fugitive emissions and fugitive dust.

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#### R307-309-2. Definitions.

The following addition definition applies to R307-309:

"Material" means sand, gravel, soil, minerals, and other matter that may create fugitive dust.

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### R307-309-3. Applicability.

- (1) Applicability. R307-309 applies to all sources of fugitive dust and fugitive emissions located within Box Elder, Cache, Davis, Salt Lake, Tooele, Utah and Weber counties, except as specified in R307-309-3(2).
  - (2) Exemptions.
- (a) The provisions of R307-309 do not apply to agricultural or horticultural activities specified in 19-2-114 (1)-(3).
- (b) Any activity subject to R307-307 is exempt from R307-309-7.

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## R307-309-4. Fugitive Emissions.

- (1) Fugitive emissions from any source shall not exceed 15% opacity.
- (2) Opacity observations of fugitive emissions from stationary sources shall be conducted in accordance with EPA Method 9.
- (3) For intermittent sources and mobile sources, opacity observations shall use procedures similar to Method 9.

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### R307-309-5. General Requirements for Fugitive Dust.

- (1) Except as provided in R307-309-5(3), opacity caused by fugitive dust shall not exceed:
- (a) 10% at the property boundary; and (b) 20% on site
- (2) Any person owning or operating a new or existing source of fugitive dust one-quarter acre or greater in size shall submit a fugitive dust control plan to the director in accordance with R307-309-6.
- (3) Opacity in R307-309-5(1) shall not apply when the wind speed exceeds 25 miles per hour if the owner or operator has implemented, and continues to implement, the accepted fugitive dust control plan in R307-309-6 and administers at least one of the following contingency measures:
- (a) Pre-event watering;
  - (b) Hourly watering;
- (c) Additional chemical stabilization; or
- 48 (d) Cease or reduce fugitive dust producing operations.
- 49 (4) Wind speed may be measured by a hand-held anemometer or 50 equivalent device.
  - (5) Opacity observations of fugitive dust from any source shall be measured at the densest point of the plume.

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(a) For mobile sources, visible emissions shall be measured at a point not less than 1/2 vehicle length behind the vehicle and not less than 1/2 the height of the vehicle.

(b) Opacity observations of emissions from stationary sources shall be measured in accordance with EPA Method 9.

### R307-309-6. Fugitive Dust Control Plan.

- (1) Any person owning or operating a new or existing source of fugitive dust, including storage, hauling or handling operations, clearing or leveling of land one-quarter acre or greater in size, earthmoving, excavation, moving trucks or construction equipment over cleared land one-quarter acre or greater in size or access haul roads, or demolition activities including razing homes, buildings or other structures, shall submit a fugitive dust control plan on a form provided by the director.
- (2) Activities regulated by R307-309 shall not commence before the fugitive dust control plan is accepted by the Division of Air Quality.

## R307-309-7. Storage, Hauling and Handling of Aggregate Materials.

Any person owning, operating or maintaining a new or existing material storage, handling or hauling operation shall prevent, to the maximum extent possible, material from being deposited onto any paved road other than a designated deposit site. Any such person who deposits materials that may create fugitive dust on a public or private paved road shall clean the road immediately.

#### R307-309-8. Construction and Demolition Activities.

Any person engaging in clearing or leveling of land with an area of one-quarter acre or more, earthmoving, excavating, construction, demolition, or moving trucks or construction equipment over cleared land or access haul roads shall prevent, to the maximum extent possible, material from being deposited onto any paved road other than a designated deposit site. Any such person who deposits materials that may create fugitive dust on a public or private paved road shall clean the road immediately.

### R307-309-9. Roads.

- (1) Any person responsible for construction or maintenance of any existing road or having right-of-way easement or possessing the right to use the same whose activities result in fugitive dust from the road shall minimize fugitive dust to the maximum extent possible. - Any such person who deposits materials that may create fugitive dust on a public or private paved road shall clean the road immediately.
- (2) Unpaved Roads. Any person responsible for construction or maintenance of any new or existing unpaved road shall prevent, to the maximum extent possible, the deposit of material from the unpaved road onto any intersecting paved road during construction or maintenance. Any person who deposits materials that may create fugitive dust on a public or private paved road shall clean the road immediately.

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### R307-309-10. Mining Activities.

- (1) Fugitive dust, construction activities, and roadways associated with mining activities are regulated under the provisions of R307-309-10 and not by R307-309-7, 8, 9, and 11.
- (2) Any person who owns or operates a mining operation shall minimize fugitive dust as an integral part of site preparation, mining activities, and reclamation operations.
- -(3) The fugitive dust control measures to be used may include:
  - (a) Periodic watering of unpaved roads,
- (b) Chemical stabilization of unpaved roads, (c) Paving of roads,
- (d) Immediate removal of coal, rock minerals, soil, and other dust-forming debris from roads and frequent scraping and compaction of unpaved roads to stabilize the road surface,
- (e) Restricting the speed of vehicles in and around the mining operation,
- (f) Revegetating, mulching, or otherwise stabilizing the surface of all areas adjoining roads that are a source of fugitive dust,
- (g) Restricting the travel of vehicles on other than established roads,
- (h) Enclosing, covering, watering, or otherwise treating loaded haul trucks and railroad cars, to minimize loss of material to wind and spillage,
- (i) Substitution of conveyor systems for haul trucks and covering of conveyor systems when conveyed loads are subject to wind erosion,
  - (j) Minimizing the area of disturbed land,
  - (k) Prompt revegetation of regraded lands,
- (1) Planting of special windbreak vegetation at critical points in the permit area,
- (m) Control of dust from drilling, using water sprays, hoods, dust collectors or other controls approved by the director.
  - (n) Restricting the areas to be blasted at any one time,
- (o) Reducing the period of time between initially disturbing the soil and revegetating or other surface stabilization,
- <del>(p) Restricting fugitive dust at spoil and coal transfer and </del> loading points,
- (q) Control of dust from storage piles through use of enclosures, covers, or stabilization and other equivalent methods or techniques as approved by the director, or
  - (r) Other techniques as determined necessary by the director.

### R307-309-11. Tailings Piles and Ponds.

- (1) Fugitive dust, construction activities, and roadways associated with tailings piles and ponds are regulated under the provisions of R307-309-11 and not by R307-309-7, 8, 9, and 10.
- (2) Any person owning or operating an existing tailings operation where fugitive dust results from grading, excavating, depositing, or natural erosion or other causes in association with such operation shall take steps to minimize fugitive dust from such activities. Such controls may include:
- <del>(a) Watering,</del>
- (b) Chemical stabilization,

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- 1 (c) Synthetic covers,
  - (d) Vegetative covers,
- 3 (e) Wind breaks,
  - (f) Minimizing the area of disturbed tailings,
  - (g) Restricting the speed of vehicles in and around the tailings operation, or
  - (h) Other equivalent methods or techniques which may be approvable by the director.

# R307-309-12. Compliance Schedule.

All sources within Salt Lake County, Utah County and the city of Ogden shall be in compliance with R307-309 upon the effective date of this rule. All sources within Box Elder County, Cache County, Davis County, Toocle County, and the remaining portions of Weber shall be in compliance with R307-309 within 30 days of the effective date of this rule.

## R307-309-1. Purpose.

This rule establishes minimum work practices and emission standards for sources of fugitive emissions and fugitive dust.

## R307-309-2. Definitions.

The following additional definition applies to R307-309:

"Material" means sand, gravel, soil, minerals, and other matter that may create fugitive dust.

## R307-309-3. Applicability.

- (1) Applicability. R307-309 applies to all sources of fugitive dust and fugitive emissions located in PM10 and PM2.5 nonattainment and maintenance plan areas as defined in 40 CFR 81.345 (July 1, 2011), except as specified in R307-309-3(2).
  - (2) Exemptions.
- (a) Agriculturally derived fugitive dust sources, including agricultural or horticultural activities specified in 19-2-114 (1) - (3) are exempt from the provisions of R307-309.
  - (b) Any activity subject to R307-307 is exempt from R307-309-7.

# R307-309-4. Fugitive Emissions.

- (1) Fugitive emissions from any source shall not exceed 15% opacity.
- $\overline{(2)}$  Opacity observations of fugitive emissions from stationary sources shall be conducted in accordance with EPA Method 9.
- (3) For intermittent sources and mobile sources, opacity observations shall be conducted using Method 9; however, requirement for observations to be made at 15 second intervals over a six-minute period shall not apply.

### R307-309-5. General Requirements for Fugitive Dust.

- Except as provided in R307-309-5(3), opacity caused by fugitive dust shall not exceed:
  - (a) 10% at the property boundary; and
  - 20% on site (b)
  - Any person owning or operating a new or existing source

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51 52 of fugitive dust one-quarter acre or greater in size shall submit a fugitive dust control plan to the director in accordance with R307-309-6.

- (3) Opacity in R307-309-5(1) shall not apply when the wind speed exceeds 25 miles per hour if the owner or operator has implemented, and continues to implement, the accepted fugitive dust control plan in R307-309-6 and administers at least one of the following contingency measures:
  - (a) Pre-event watering;
  - (b) Hourly watering;
  - Additional chemical stabilization; or (C)
  - Cease or reduce fugitive dust producing operations. (d)
  - (e) Other contingency measure approved by the director.
- Wind speed may be measured by a hand-held anemometer or equivalent device.
- (5) Opacity observations of fugitive dust from any source shall be measured at the densest point of the plume.
- (a) For mobile sources, visible emissions shall be measured at a point not less than 1/2 vehicle length behind the vehicle and not less than 1/2 the height of the vehicle.
- (b) Opacity observations of emissions from stationary sources shall be measured in accordance with EPA Method 9.
- (c) For intermittent sources, opacity observations shall be conducted using Method 9; however, the requirement for observations to be made at 15 second intervals over a six-minute period shall not apply.

### R307-309-6. Fugitive Dust Control Plan.

- (1) Any person owning or operating a new or existing source of fugitive dust, including storage, hauling or handling operations, clearing or leveling of land one-quarter acre or greater in size, earthmoving, excavation, moving trucks or construction equipment over cleared land one-quarter acre or greater in size or access haul roads, or demolition activities including razing homes, buildings or other structures, shall submit a fugitive dust control plan on a form provided by the director or another format approved by the director.
- (a) A fugitive dust control plan that has been submitted to and accepted by the director prior to December 3, 2012, will fulfill the requirements of R307-309-6.
- (2) Activities regulated by R307-309 shall not commence before the fugitive dust control plan is approved by the director.
- (a) Successful completion of the web-based division-sponsored fugitive dust control plan tool shall constitute plan approval.
- (b) Hard copy fugitive control plan submission must be reviewed and approved by the director prior to commencing activities regulated by R307-309.
- (3) Sources with an existing fugitive dust control plan who make site modifications that result in emission changes shall submit an updated fugitive dust control plan.
- (4) Minimum fugitive dust control plan requirements. At a minimum, a fugitive dust control plan must include the following requirements as they apply to a source:

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1	(a) Backfilling.
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2	(i) Stabilize backfill material when not actively handling.
3	(ii) Stabilize backfill material during handling.
4	(iii) Stabilize soil at completion of backfilling activity.
5	(iv) Stabilize material while using pipe padder equipment.
6	(b) Blasting.
7	(i) Stabilize surface soils where drills, support equipment and
8	vehicles will operate.
9	(ii) Stabilize soil during blast preparation activities.
10	(iii) Stabilize soil after blasting.
11	(c) Clearing.
12	(i) Stabilize surface soils where support equipment and vehicles
13	will operate.
14	(ii) Stabilize disturbed soil immediately after clearing and
15	grubbing activities.
16	(iii) Stabilize slopes at completion of activity.
17	(d) Clearing forms, foundations and slabs.
18	(i) Use water, sweeping and vacuum to clear.
19	(e) Crushing.
20	(i)Stabilize surface soils where support equipment and vehicles
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	will operate.
22	(ii) Stabilize material before, during and after crushing.
23	(iii) Traffic mileage or speed controls.
24	(iv) Minimize transfer height.
25	(f) Cut and fill.
26	(i) Stabilize surface soils where support equipment and vehicles
27	will operate.
28	(ii) Pre-water soils.
29	(iii) Stabilize soil during and after cut activities.
30	(g) Demolition-implosion.
31	(i) Stabilize surface area where support equipment and vehicles
32	will be operated.
33	(ii) Stabilize demolition debris immediately following blast and
34	safety clearance.
35	(iii) Stabilize and clean surrounding area immediately following
36	blast and safety clearance.
37	(h) Demolition-mechanical and manual.
38	(i) Stabilize surface areas where support equipment and vehicles
39	<u>will operate.</u>
40	(ii) Stabilize demolition debris during handling.
41	(iii) Stabilize debris following demolition.
42	(iv) Stabilize surrounding area following demolition.
43	(i) Disturbed soil.
44	(i)Limit disturbance of soils where possible.
45	(ii) Stabilize and maintain stability of all disturbed soil
46	throughout construction site.
47	(j) Hauling materials.
48	(i)Limit visible dust opacity from vehicular operations.
49	(ii) Stabilize materials during transport on site.
50	(iii) Clean wheels and undercarriage of haul trucks prior to
51	leaving construction site.
52	(k) Paving subgrade preparation.
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- November 5, 2012 R307-309 Page 7 of 10 1 (i) Stabilize adjacent disturbed soils following paving 2 activities by applying water, chemical stabilizer and/or 3 synthetic cover. 4 (1) Sawing and cutting materials. 5 (i) Limit visible emissions using water or vacuum. 6 (m) Screening. 7 (i) Stabilize surface soils where support equipment and vehicles 8 will operate. 9 (ii) Pre-treat material prior to screening. 10 (iii) Stabilize material during screening. (iv) Stabilize material and surrounding area immediately after 11 12
  - screening. (v) Minimize transfer height.
  - (n) Staging areas.

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- (i) Limit visible dust opacity from vehicular operations.
- (ii) Stabilize staging area soils during use.
- (iii) Stabilize staging area soils at project completion.
- (o) Stockpiling.
  - (i) Stabilize stockpile materials during and after handling.
- (ii) Stabilize surface soils where support equipment and vehicles will operate.
- (p) Trackout prevention and cleanup.
- (i) Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect.
- (q) Traffic on unpaved routes and parking areas.
- (i) Stabilize surface soils where support equipment and vehicles will operate.
- (r) Trenching.
- (i) Stabilize surface soils where trenching equipment, support equipment and vehicles will operate.
- (ii) Stabilize soils after trenching.
- (s) Truck loading.
- (i) Empty loader bucket slowly and keep loader bucket close to the truck to minimize the drop height while dumping.
- (ii) Stabilize surface soils where support equipment and vehicles will operate.
- The fugitive dust control plan must include contact information, site address, total area of disturbance, expected start and completion dates, identification of dust suppressant and plan certification by signature of a responsible person.

R307-309-7. Storage, Hauling and Handling of Aggregate Materials.

Any person owning, operating or maintaining a new or existing material storage, handling or hauling operation shall prevent, to the maximum extent possible, material from being deposited onto any paved road other than a designated deposit site. Any such person who deposits materials that may create fugitive dust on a public or private paved road shall clean the road promptly.

#### R307-309-8. Construction and Demolition Activities.

Any person engaging in clearing or leveling of land with an area of one-quarter acre or more, earthmoving, excavating, construction,

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demolition, or moving trucks or construction equipment over cleared land or access haul roads shall prevent, to the maximum extent possible, material from being deposited onto any paved road other than a designated deposit site. Any such person who deposits materials that may create fugitive dust on a public or private paved road shall clean the road promptly.

## R307-309-9. Roads.

- (1) Any person responsible for construction or maintenance of any existing road or having right-of-way easement or possessing the right to use the same whose activities result in fugitive dust from the road shall minimize fugitive dust to the maximum extent possible. Any such person who deposits materials that may create fugitive dust on a public or private paved road shall clean the road promptly.
- (2) Unpaved Roads. Any person responsible for construction or maintenance of any new or existing unpaved road shall prevent, to the maximum extent possible, the deposit of material from the unpaved road onto any intersecting paved road during construction or maintenance. Any person who deposits materials that may create fugitive dust on a public or private paved road shall clean the road promptly.

### R307-309-10. Mining Activities.

- (1) Fugitive dust, construction activities, and roadways associated with mining activities are regulated under the provisions of R307-309-10 and not by R307-309-6,7, 8, 9, and 11.
- (2) Any person who owns or operates a mining operation shall minimize fugitive dust as an integral part of site preparation, mining activities, and reclamation operations.
  - (3) The fugitive dust control measures to be used shall include:
  - (a) Periodic watering of unpaved roads or;
  - (b) Use of chemical stabilizers on unpaved roads or;
  - (c) Paving of roads.
- Immediate removal of coal, rock minerals, soil, and other (d) dust-forming debris from roads and frequent scraping and compaction of unpaved roads to stabilize the road surface.
- (e) Restricting the speed of vehicles in and around the mining operation,
- (f) Revegetating, mulching, or otherwise stabilizing the surface of all areas adjoining roads that are a source of fugitive dust.
- Restricting the travel of vehicles on other than established roads.
- (h) Enclosing, covering, watering, or otherwise treating loaded haul trucks and railroad cars, to minimize loss of material to wind and spillage.
- (i) Substitution of conveyor systems for haul trucks and covering of conveyor systems when conveyed loads are subject to wind erosion.
  - (j) Minimizing the area of disturbed land.
  - (k) Prompt revegetation of regraded lands.
- (1) Planting of special windbreak vegetation at critical points in the permit area.
  - Control of dust from drilling, using water sprays, hoods, (m)

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- dust collectors or other controls approved by the director.
  - (n) Restricting the areas to be blasted at any one time.
- (o) Reducing the period of time between initially disturbing the soil and revegetating or other surface stabilization.
- (p) Restricting fugitive dust at spoil and coal transfer and loading points.
- (q) Control of dust from storage piles through use of enclosures, covers, or stabilization and other equivalent methods or techniques as approved by the director, or
  - (r) Other techniques as determined necessary by the director.
- (4) Owners or operators shall submit a fugitive dust control plan to the director on a form provided by the director or another format approved by the director.
- (a) Activities regulated by R307-309-10 shall not commence before the fugitive dust control plan is approved by the director.
- (b) A fugitive dust control plan that has been submitted to and accepted by the director prior to December 3, 2012, will fulfill the requirements of R307-309-10.
- (c) Sources with an existing fugitive dust control plan that make site modifications that result in emission changes shall submit an updated fugitive dust control plan.
- (d) The fugitive dust control plan shall include site location, contact information, plot plan, total area of land to be disturbed, sources of fugitive dust, types of dust suppressants, high wind contingency measures, treatments for preventing trackout controls and plan certification by signature of a responsible person.

#### R307-309-11. Tailings Piles and Ponds.

- Fugitive dust, construction activities, and roadways associated with tailings piles and ponds are regulated under the provisions of R307-309-11 and not by R307-309-6,7, 8, 9, and 10.
- (2) Any person owning or operating an existing tailings operation where fugitive dust results from grading, excavating, depositing, or natural erosion or other causes in association with such operation shall take steps to minimize fugitive dust from such activities. Such controls shall include:
  - (a) Watering or;
  - (b) Chemical stabilization or;
- (c) Synthetic covers or;
  (d) Vegetative covers or;
  - (e) Wind breaks or;
  - (f) A combination of R307-309-11(2)(a)-(e);
  - (g) Minimizing the area of disturbed tailings;
- (h) Restricting the speed of vehicles in and around the tailings operation; or
- Other equivalent methods or techniques which may be (h) approvable by the director.
- (3) Owners or operators shall submit a fugitive dust control plan to the director.
- (a) Activities regulated by R307-309-11 shall not commence before the fugitive dust control plan is approved by the director.
  - A fugitive dust control plan that has been submitted to

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32 33 and accepted by the director prior to December 3, 2012, will fulfill the requirements of R307-309-11.

(c) Sources with an existing fugitive dust control plan that make site modifications that result in emission changes shall submit an updated fugitive dust control plan.

(d) The fugitive dust control plan shall include site location, contact information, plot plan, total area of land to be disturbed, sources of fugitive dust, types of dust suppressants, high wind contingency measures, treatments for preventing trackout controls and plan certification by signature of a responsible person.

# R307-309-12. Record Keeping.

All sources subject to R307-309-5(2) and (3) shall maintain records demonstrating compliance with R307-309. These records shall be available to the director upon request.

### R307-309-13. Compliance Schedule.

- (1) All sources within the applicable portions of Salt Lake County, Utah County and the city of Ogden shall be in compliance with R307-309 upon the effective date of this rule.
- (2) All sources within the remaining areas described in R307-309-3(1) shall be in compliance with R307-309-4 through 9 and R307-309-12 within 30 days of the effective date of this rule and shall be in compliance with R307-309-10 and 11 within 90 days of the effectiveness of this rule.

KEY: air pollution, fugitive dust

Date of Enactment or Last Substantive Amendment: 2012

29 Notice of Continuation: June 2, 2010

30 Authorizing, and Implemented or Interpreted Law: 19-2-101; 19-2-104;

31 19-2-109